



ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 60

[EPA-HQ-OAR-2010-0873; FRL-9909-98-OAR]

RIN 2060-AH23

Quality Assurance Requirements for Continuous Opacity Monitoring Systems at Stationary Sources

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates quality assurance and quality control (QA/QC) procedures (referred to as Procedure 3) for continuous opacity monitoring systems (COMS) used to demonstrate continuous compliance with opacity standards specified in new source performance standards (NSPS) issued by the EPA pursuant to section 111(b) of the Clean Air Act (CAA), Standards of Performance for New Stationary Sources.

DATES: This final rule is effective on **[INSERT DATE 180 DAYS FROM DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2010-0873. All documents in the docket are listed in the www.regulations.gov index. Although listed in the index, some information is not publicly available, e.g., confidential business information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly

available only in hard copy form. Publicly available docket materials are available either electronically at www.regulations.gov or in hard copy at the Air Docket, EPA/DC, William J. Clinton West Building, Room 3334, 1301 Constitution Ave., NW, Washington, DC. The Docket Facility and Public Reading Room are open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Air Docket is (202) 566-1742, and the telephone number for the Public Reading Room is (202) 566-1744.

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I. General Information

A. Does this action apply to me?

Procedure 3 applies to COMS used to demonstrate continuous compliance with opacity standards specified in NSPS promulgated by the EPA pursuant to section 111(b) of the CAA, 42 U.S.C. 7411(b).

B. Where can I obtain a copy of this action?

In addition to being available in the docket, an electronic copy of this rule will also be available on the Worldwide Web (www) through the Technology Transfer Network (TTN). Following the Administrator's signature, a copy of the final rule will be placed on the TTN's policy and guidance page for newly proposed or promulgated rules at <http://www.epa.gov/ttn/oarpg>. The TTN provides information and technology exchange in various areas of air pollution control. A redline strikeout document that compares this final rule to the proposed rule has also been added to the docket.

C. Judicial Review

Under section 307(b)(1) of the CAA, judicial review of this final rule is available by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit by

[INSERT DATE 60 DAYS FROM DATE OF PUBLICATION IN THE FEDERAL REGISTER]. Under section 307(d)(7)(B) of the CAA, only an objection

to this final rule that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under section 307(b)(2) of the CAA, the requirements that are the subject of this final rule may not be challenged later in civil or criminal proceedings brought by the EPA to enforce these requirements.

II. Background

Procedure 3 results in national consistency in the application of QA/QC procedures by applicable sources using COMS. We published a direct final rule and a parallel proposed rule for Procedure 3 in the Federal Register on February 14, 2012. The public comment period was originally scheduled to end on March 15, 2012, but was extended to April 30, 2012, at the request of several commenters. On March 28, 2012, the EPA withdrew the direct final rule based on the receipt of adverse comments on the parallel proposed rule.

III. Summary of Procedure 3

This final rule codifies Procedure 3 in 40 CFR part 60, Appendix F. Procedure 3 establishes requirements for daily instrument zero and upscale drift checks, daily status indicator checks, quarterly performance audits, and annual zero alignments, and requires source owners and operators to have a corrective action in place for malfunctioning COMS. In addition, Performance Specification 1 (which is the initial certification for COMS) provides requirements for the design, performance, and installation of a COMS and data computation procedures for evaluating the acceptability of a COMS. The

requirements in Procedure 3 are modeled after manufacturers' maintenance recommendations. As a result, the EPA believes that most, if not all, owners/operators are already following procedures similar to those specified in Procedure 3. Therefore, there are no additional costs, or reporting burden, associated with implementing Procedure 3.

IV. Public Comments on Proposed Procedure 3

The EPA received 27 comments from state agencies, industry, and non-profit organizations. Nine commenters noted support for Procedure 3. Several commenters requested clarity with regard to applicability, so the applicability statement is revised to indicate that Procedure 3 applies to COMS used to demonstrate continuous compliance with opacity standards in NSPS's only. More than half of the commenters stated that the 60-day compliance deadline is not enough time in cases where training is necessary or QA/QC plans need to be developed. In response, the EPA has extended the deadline to 180 days. Several commenters asked that we clarify the temporal definitions for the daily, quarterly, and annual audits because some units do not operate 24 hours a day, 7 days a week. In response, the temporal definitions are revised. Several commenters noted that a fault status indicator does not necessarily mean that data are invalid. The EPA agrees that a status indicator is a warning that opacity readings are nearing the limit and that the data are not necessarily invalid, so language that indicated the data would be considered invalid has been removed. Several commenters requested that we delete the requirement to remove the COMS to conduct zero

alignment audits claiming that removing the COMS from the stack exposes it to potential damage and presents a safety hazard. However, the EPA believes that the zero alignment audit needs to be done off-stack annually unless a source owner or operator chooses the alternative that allows the installation of an external zero device that allows COMS removal from the stack every three years. Also, based on conversations with manufacturers, the EPA believes that the risks for damage when removing the COMS from the stack are minimal. Therefore, the requirement to remove the COMS to conduct zero alignment audits is finalized as proposed.

Individual comments, as well as the EPA's summary and response to the public comments, are available for public viewing in the docket under Docket ID No. EPA-HQ-OAR-2010-0873.

V. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a "significant regulatory action" under the terms of Executive Order 12866 (58 FR 51735, October 4, 1993) and is therefore not subject to review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011).

B. Paperwork Reduction Act

This action does not impose an information collection burden under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. Burden is defined at 5 CFR 1320.3(b). The requirements in applicable regulations are broad enough to include the information

collection requirements specified in Procedure 3. In addition, the requirements in Procedure 3 are modeled after manufacturers' maintenance recommendations. As a result, the EPA believes that most, if not all, owners/operators are already following procedures similar to those specified in Procedure 3. Therefore, there are no additional costs, or reporting burden, associated with implementing Procedure 3.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of accessing the impacts of this rule on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of this rule on small entities, I certify that this action will not have a significant

economic impact on a substantial number of small entities. This final rule will not impose any additional requirements on small entities. This action establishes quality assurance/quality control procedures for continuous opacity monitoring systems used for compliance purposes.

D. Unfunded Mandates Reform Act

This rule does not contain a federal mandate that may result in expenditures of \$100 million or more for state, local, and tribal governments, in the aggregate, or the private sector in any one year. Rules establishing quality assurance requirements impose no costs independent from national emission standards which require their use, and such costs are fully reflected in the regulatory impact assessment for those emission standards. Thus, this rule is not subject to the requirements of sections 202 or 205 of UMRA.

This rule is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. This action establishes quality assurance procedures for continuous opacity monitoring systems used to demonstrate continuous compliance with

opacity standards as specified in new source performance standards (NSPS) promulgated by EPA pursuant to section 111(b) of the Clean Air Act, 42 U.S.C. 7411(b). It does not add any emission limits and does not affect pollutant emissions or air quality. Thus, Executive Order 13132 does not apply to this action.

F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). This action establishes quality assurance procedures for continuous opacity monitoring systems. It does not add any emission limits and does not affect pollutant emissions or air quality. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

The EPA interprets EO 13045 (62 FR 19885, April 23, 1997) as applying only to those regulatory actions that concern health or safety risks, such that the analysis required under section 5-501 of the EO has the potential to influence the regulation. This action is not subject to EO 13045 because it does not establish an environmental standard intended to mitigate health or safety risks.

H. Executive Order 13211: Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use

This action is not subject to Executive Order 13211 (66 FR 28355 (May 22, 2001)) because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law No. 104-113, 12(d) (15 U.S.C. 272 note) directs the EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs the EPA to provide Congress, through OMB, explanations when the agency decides not to use available and applicable voluntary consensus standards.

This rulemaking involves technical standards. Therefore, the agency conducted a search to identify potentially applicable voluntary consensus standards. However we identified no such standards except ASTM D6216-12, and none were brought to our attention in comments. Therefore, the EPA has decided to use ASTM D6216-12.

J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order (EO) 12898 (59 FR 7629 (Feb. 16, 1994)) establishes federal executive policy on environmental justice. Its

main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

The EPA has determined that this final rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it does not affect the level of protection provided to human health or the environment. This rule does not relax the control measures on sources regulated by the rule and, therefore, will not cause emissions increases from these sources.

K. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the Federal Register. A major rule cannot take effect until 60 days after it is published in the Federal Register. This action is not a "major

rule" as defined by 5 U.S.C. 804(2). This rule will be effective
[INSERT DATE 180 DAYS FROM DATE OF PUBLICATION IN THE FEDERAL
REGISTER] .

List of Subjects in 40 CFR Part 60

Air pollution control, Environmental protection, Continuous opacity monitoring.

Dated: May 9, 2014.

Gina McCarthy,
Administrator.

For the reasons stated in the preamble, title 40, chapter I of the Code of Federal Regulations is amended as follows:

Part 60 - [AMENDED]

1. The authority citation for part 60 continues to read as follows:

Authority: 42 U.S.C. 7401 et seq.

2. Appendix F of part 60 is amended by adding Procedure 3 to read as follows:

Appendix F to Part 60 - Quality Assurance Procedures

* * * * *

Procedure 3 - Quality Assurance Requirements for Continuous Opacity Monitoring Systems at Stationary Sources

1.0 What are the purpose and applicability of Procedure 3?

The purpose of Procedure 3 is to establish quality assurance and quality control (QA/QC) procedures for continuous opacity monitoring systems (COMS). Procedure 3 applies to COMS used to demonstrate continuous compliance with opacity standards specified in new source performance standards (NSPS) promulgated by EPA pursuant to section 111(b) of the Clean Air Act, 42 U.S.C. 7411(b) - Standards of Performance for New Stationary Sources.

1.1 What are the data quality objectives of Procedure 3? The overall data quality objective (DQO) of Procedure 3 is the generation of valid and representative opacity data. Procedure 3 specifies the minimum requirements for controlling and assessing the quality of COMS data submitted to us or the delegated regulatory agency.

Procedure 3 requires you to perform periodic evaluations of a COMS

performance and to develop and implement QA/QC programs to ensure that COMS data quality is maintained.

1.2 What is the intent of the QA/QC procedures specified in Procedure 3? Procedure 3 is intended to establish the minimum QA/QC requirements to verify and maintain an acceptable level of quality of the data produced by COMS. It is presented in general terms to allow you to develop a program that is most effective for your circumstances.

1.3 When must I comply with Procedure 3? You must comply with Procedure 3 no later than [Insert date 180 days from date of publication in the Federal Register].

2.0 What are the basic functions of Procedure 3?

The basic functions of Procedure 3 are assessment of the quality of your COMS data and control and improvement of the quality of the data by implementing QC requirements and corrective actions.

Procedure 3 provides requirements for:

(1) Daily instrument zero and upscale drift checks and status indicators checks;

(2) Quarterly performance audits which include the following assessments:

- (i) Optical alignment,
- (ii) Calibration error, and
- (iii) Zero compensation.

Sources that achieve quality assured data for four consecutive quarters may reduce their auditing frequency to semi-annual. If a

performance audit is failed, the source must resume quarterly testing for that audit requirement until it again demonstrates successful performance over four consecutive quarters.

(3) Annual zero alignment.

3.0 What special definitions apply to Procedure 3?

The definitions in Procedure 3 include those provided in Performance Specification 1 (PS-1) of Appendix B of this part and ASTM D6216-12 and the following additional definitions.

3.1 Out-of-control periods. Out-of-control periods mean that one or more COMS parameters falls outside of the acceptable limits established by this rule.

(1) Daily Assessments. Whenever the calibration drift (CD) exceeds twice the specification of PS-1, the COMS is out-of-control. The beginning of the out-of-control period is the time corresponding to the completion of the daily calibration drift check. The end of the out-of-control period is the time corresponding to the completion of appropriate adjustment and subsequent successful CD assessment.

(2) Quarterly and Annual Assessments. Whenever an annual zero alignment or quarterly performance audit fails to meet the criteria established in paragraphs (2) and (3) of section 10.4, the COMS is out-of-control. The beginning of the out-of-control period is the time corresponding to the completion of the performance audit indicating the failure to meet these established criteria. The end of the out-of-control period is the time corresponding to the completion

of appropriate corrective actions and the subsequent successful audit (or, if applicable, partial audit).

4.0 What interferences must I avoid?

Opacity cannot be measured accurately in the presence of condensed water vapor. Thus, COMS opacity compliance determinations cannot be made when condensed water vapor is present, such as downstream of a wet scrubber without a reheater or at other saturated flue gas locations. Therefore, COMS must be located where condensed water vapor is not present.

5.0 What do I need to know to ensure the safety of persons using Procedure 3?

Those implementing Procedure 3 may be exposed to hazardous materials, operations and equipment. Procedure 3 does not purport to address all of the safety issues associated with its use. It is your responsibility to establish appropriate health and safety practices and determine the applicable regulatory limitations before performing this procedure. You should consult the COMS user's manual for specific precautions to take.

6.0 What equipment and supplies do I need?

The equipment and supplies that you need are specified in PS-1. You are not required to purchase a new COMS if your existing COMS meets the requirements specified in Procedure 3.

7.0 What reagents and standards do I need?

The reagents and standards that you need are specified in PS-1. You are not required to purchase a new COMS if your existing COMS meets the requirements specified in Procedure 3.

8.0 What sample collection, preservation, storage, and transport are relevant to this procedure? [Reserved]

9.0 What quality control measures are required by this procedure for my COMS?

You must develop and implement a QC program for your COMS. Your QC program must, at a minimum, include written procedures which describe in detail complete step-by-step procedures and operations for the activities in paragraphs (1) through (4):

- (1) Procedures for performing drift checks, including both zero and upscale drift and the status indicators check,
- (2) Procedures for performing quarterly performance audits,
- (3) A means of checking the zero alignment of the COMS, and
- (4) A program of corrective action for a malfunctioning COMS. The corrective action must include, at a minimum, the requirements specified in section 10.5.

9.1 What QA/QC documentation must I have? You are required to keep the QA/QC written procedures required in section 9.0 on site and available for inspection by us, the state, and/or local enforcement agencies.

9.2 What actions must I take if I fail QC audits? If you fail two consecutive annual audits, two consecutive quarterly audits, or five consecutive daily checks, you must either revise your QC procedures

or determine if your COMS is malfunctioning. If you determine that your COMS is malfunctioning, you must take the necessary corrective action as specified in section 10.5. If you determine that your COMS requires extensive repairs, you may use a substitute COMS provided the substitute meets the requirements in section 10.6.

10.0 What calibration and standardization procedures must I perform for my COMS?

(1) You must perform daily system checks to ensure proper operation of system electronics and optics, light and radiation sources and detectors, electric or electro-mechanical systems, and general stability of the system calibration. Daily is defined as any portion of a calendar day in which a unit operates.

(2) You must subject your COMS to a performance audit to include checks of the individual COMS components and factors affecting the accuracy of the monitoring data at least once per QA operating quarter. A QA operating quarter is a calendar quarter in which a unit operates at least 168 hours.

(3) At least annually, you must perform a zero alignment by comparing the COMS simulated zero to the actual clear path zero. Annually is defined as a period wherein the unit is operating at least 28 days in a calendar year. The simulated zero device produces a simulated clear path condition or low-level opacity condition, where the energy reaching the detector is between 90 and 110 percent of the energy reaching the detector under actual clear path conditions.

10.1 What daily system checks must I perform on my COMS? The specific components required to undergo daily system checks will depend on the design details of your COMS. At a minimum, you must verify the system operating parameters listed in paragraphs (1) through (3) of this section. Some COMS may perform one or more of these functions automatically or as an integral portion of unit operations; other COMS may perform one or more of these functions manually.

(1) You must check the zero drift to ensure stability of your COMS response to the simulated zero device. The simulated zero device, an automated mechanism within the transmissometer that produces a simulated clear path condition or low-level opacity condition, is used to check the zero drift. You must, at a minimum, take corrective action on your COMS whenever the daily zero drift exceeds twice the applicable drift specification in section 13.3(6) of PS-1.

(2) You must check the upscale drift to ensure stability of your COMS response to the upscale drift value. The upscale calibration device, an automated mechanism (employing an attenuator or reduced reflectance device) within the transmissometer that produces an upscale opacity value is used to check the upscale drift. You must, at a minimum, take corrective action on your COMS whenever the daily upscale drift check exceeds twice the applicable drift specification in section 13.3(6) of PS-1.

(3) You must, at a minimum, check the status indicators, data acquisition system error messages, and other system self-diagnostic

indicators. You must take appropriate corrective action based on the manufacturer's recommendations when the COMS is operating outside preset limits.

10.2 What are the quarterly auditing requirements for my COMS?

At a minimum, the parameters listed in paragraphs (1) through (3) of this section must be included in the performance audit conducted on a quarterly basis as defined in section 10.0(2).

(1) For units with automatic zero compensation, you must determine the zero compensation for the COMS. The value of the zero compensation applied at the time of the audit must be calculated as equivalent opacity and corrected to stack exit conditions according to the procedures specified by the manufacturer. The compensation applied to the effluent by the monitor system must be recorded.

(2) You must conduct a three-point calibration error test of the COMS. Three calibration attenuators, either primary or secondary must meet the requirements of PS-1, with one exception. Instead of recalibrating the attenuators semi-annually, they must be recalibrated annually. If two annual calibrations agree within 0.5 percent opacity, the attenuators may then be calibrated once every five years. The three attenuators must be placed in the COMS light beam path for at least three nonconsecutive readings. All monitor responses must then be independently recorded from the COMS permanent data recorder. Additional guidance for conducting this test is included in section 8.1(3)(ii) of PS-1. The low-, mid-, and high-range calibration error results must be computed as the mean

difference and 95 percent confidence interval for the difference between the expected and actual responses of the monitor as corrected to stack exit conditions. The equations necessary to perform the calculations are found in section 12.0 of PS-1. For the calibration error test method, you must use the external audit device. When the external audit device is installed, with no calibration attenuator inserted, the COMS measurement reading must be less than or equal to one percent opacity. You must also document procedures for properly handling and storing the external audit device and calibration attenuators within your written QC program.

(3) You must check the optical alignment of the COMS in accordance with the instrument manufacturer's recommendations. If the optical alignment varies with stack temperature, perform the optical alignment test when the unit is operating.

10.3 What are the annual auditing requirements for my COMS?

(1) You must perform the primary zero alignment method under clear path conditions. The COMS must be removed from its installation and set up under clear path conditions. There must be no adjustments to the monitor other than the establishment of the proper monitor path length and correct optical alignment of the COMS components. You must record the COMS response to a clear condition and to the COMS's simulated zero condition as percent opacity corrected to stack exit conditions. For a COMS with automatic zero compensation, you must disconnect or disable the zero compensation mechanism or record the amount of correction applied to the COMS's simulated zero condition.

The response difference in percent opacity to the clear path and simulated zero conditions must be recorded as the zero alignment error. You must adjust the COMS's simulated zero device to provide the same response as the clear path condition as specified in paragraph (3) of section 10.0.

(2) As an alternative, monitors capable of allowing the installation of an external zero device may use the device for the zero alignment provided that: (1) the external zero device setting has been established for the monitor path length and recorded for the specific COMS by comparison of the COMS responses to the installed external zero device and to the clear path condition, and (2) the external zero device is demonstrated to be capable of producing a consistent zero response when it is repeatedly (i.e., three consecutive installations and removals prior to conducting the final zero alignment check) installed on the COMS. This can be demonstrated by either the manufacturer's certificate of conformance (MCOC) or actual on-site performance. The external zero device setting must be permanently set at the time of initial zeroing to the clear path zero value and protected when not in use to ensure that the setting equivalent to zero opacity does not change. The external zero device response must be checked and recorded prior to initiating the zero alignment. If the external zero device setting has changed, you must remove the COMS from the stack in order to reset the external zero device. If you employ an external zero device, you must perform the zero alignment audits with the COMS off the stack at least every

three years. If the external zero device is adjusted within the three-year period, you must perform the zero alignment with the COMS off the stack no later than three years from the date of adjustment.

(3) The procedure in section 6.8 of ASTM D6216-12 is allowed.

10.4 What are my limits for excessive audit inaccuracy? Unless specified otherwise in the applicable subpart, the criteria for excessive inaccuracy are listed in paragraphs (1) through (4).

(1) What is the criterion for excessive zero or upscale drift? Your COMS is out-of-control if either the zero drift check or upscale drift check exceeds twice the applicable drift specification in PS-1 for any one day.

(2) What is the criterion for excessive zero alignment? Your COMS is out-of-control if the zero alignment error exceeds 2 percent opacity.

(3) What is the criterion to pass the quarterly performance audit? Your COMS is out-of-control if the results of a quarterly performance audit indicate noncompliance with the following criteria:

(i) The optical alignment indicator does not show proper alignment (i.e., does not fall within a specific reference mark or condition).

(ii) The zero compensation exceeds 4 percent opacity, or

(iii) The calibration error exceeds 3 percent opacity.

(4) What is the criterion for data capture? You must adhere to the data capture criterion specified in the applicable subpart.

10.5 What corrective action must I take if my COMS is malfunctioning? You must have a corrective action program in place to

address the repair and/or maintenance of your COMS. The corrective action program must address routine/preventative maintenance and various types of analyzer repairs. The corrective action program must establish what diagnostic testing must be performed after each type of activity to ensure that the COMS is collecting valid, quality-assured data. Recommended maintenance and repair procedures and diagnostic testing after repairs may be found in an associated guidance document.

10.6 What requirements must I meet if I use a temporary opacity monitor?

(1) In the event that your certified opacity monitor has to be removed for extended service, you may install a temporary replacement monitor to obtain required opacity emissions data provided that:

(i) The temporary monitor has been certified according to ASTM D6216-12 for which a MCOC has been provided;

(ii) The use of the temporary monitor does not exceed 1080 hours (45 days) of operation per year as a replacement for a fully certified opacity monitor. After that time, the analyzer must complete a full certification according to PS-1 prior to further use as a temporary replacement monitor. Once a temporary replacement monitor has been installed and required testing and adjustments have been successfully completed, it cannot be replaced by another temporary replacement monitor to avoid the full PS-1 certification testing required after 1080 hours (45 days) of use;

(iii) The temporary monitor has been installed and successfully completed an optical alignment assessment and status indicator assessment;

(iv) The temporary monitor has successfully completed an off-stack clear path zero assessment and zero calibration value adjustment procedure;

(v) The temporary monitor has successfully completed an abbreviated zero and upscale drift check consisting of seven zero and upscale calibration value drift checks which may be conducted within a 24-hour period with not more than one calibration drift check every three hours and not less than one calibration drift check every 25 hours. Calculated zero and upscale drift requirements are the same as specified for the normal PS-1 certification;

(vi) The temporary monitor has successfully completed a three-point calibration error test;

(vii) The upscale reference calibration check value of the new monitor has been updated in the associated data recording equipment;

(viii) The overall calibration of the monitor and data recording equipment has been verified; and

(ix) The user has documented all of the above in the maintenance log.

(2) Data generated by the temporary monitor is considered valid when paragraphs (i) through (ix) in this section have been met.

10.7 When do out-of-control periods begin and end? The out-of-control periods are as specified in section 3.1.

10.8 What are the limitations on the use of my COMS data collected during out-of-control periods? During the period your COMS is out-of-control, you may not use your COMS data to calculate emission compliance or to meet minimum data capture requirements in this procedure or the applicable regulation.

10.9 What are the QA/QC reporting requirements for my COMS? You must report in a Data Assessment Report (DAR) the information required by sections 10.0, 10.1, 10.2, and 10.3 for your COMS at the interval specified in the applicable regulation.

10.10 What minimum information must I include in my DAR? At a minimum, you must include the information listed in paragraphs (1) through (5) of this section in the DAR.

(1) Name of person completing the report and facility address,

(2) Identification and location of your COMS(s),

(3) Manufacturer, model, and serial number of your COMS(s),

(4) Assessment of COMS data accuracy/acceptability and date of assessment as determined by a performance audit described in section 10.0. If the accuracy audit results show your COMS to be out-of-control, you must report both the audit results showing your COMS to be out-of-control and the results of the audit following corrective action showing your COMS to be operating within specifications, and

(5) Summary of all corrective actions you took when you determined your COMS was out-of-control.

10.11 Where and how long must I retain the QA data that this procedure requires me to record for my COMS? You must keep the

records required by this procedure for your COMS on site and available for inspection by us, the state, and/or the local enforcement agency for the period specified in the regulations requiring the use of COMS.

11.0 What analytical procedures apply to this procedure? [Reserved]

12.0 What calculations and data analysis must I perform for my COMS?

The calculations required for the quarterly performance audit are in section 12.0 of PS-1.

13.0 Method Performance [Reserved]

14.0 Pollution Prevention [Reserved]

15.0 Waste Management [Reserved]

16.0 References

16.1 Performance Specification 1-Specifications and Test Procedures for Continuous Opacity Monitoring Systems in Stationary Sources, 40 CFR part 60, Appendix B.

16.2 ASTM D6216-12-Standard Practice for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications, American Society for Testing and Materials (ASTM).

17.0 What tables, diagrams, flowcharts, and validation data are relevant to this procedure? [Reserved]